NRCS Natural Resources Conservation Service

Minnesota

Nutrient Management Requirements for EQIP Contracts

Implement items 1 through 15 below. Implementation can be phased in over 2 years. **SUBMIT** required information and **CERTIFY** completion of all planned nutrient management operations to receive payment.

1st Crop Year* of Scheduled Nutrient Management for Multi-Year Contracts

1) **Complete the attached job sheet 590b** prior to any planned fertilizer or manure applications
   - By **OCTOBER 1** for fall or winter applications or **MARCH 1** for spring or summer applications (for example if you signed your EQIP contract in August of 2005 and want to begin 1st year nutrient management for crop year 2006, you would have to complete job sheet 590b almost immediately if you are planning fall or winter applications).
   - The job sheet is a schedule for completing items 2-6 listed below

2) **Develop realistic yield goals** (taking yields for the last five years, dropping the lowest yield, and averaging the four remaining yields).

3) **Collect soil samples** for pH, organic matter (O.M.), phosphorus (P), and potassium (K) at a minimum,. Have the samples analyzed at a soil-testing lab certified by the Minnesota Department of Agriculture (MDA). Existing soil tests, no older than 3 to 4 years, may be used. However, nitrate tests are normally gathered annually after crop harvest.

4) **Collect manure samples** each time a storage structure is emptied for application and have it analyzed for total N, P_2O_5 and K_2O using procedures and laboratories recommended by the MDA.

5) **Keep field specific records** of crops, yields, and commercial fertilizer and manure applications (including rates, timing, nutrient content, and method of application and incorporation).

6) **Develop a strategic nutrient management plan** prior to **AUGUST 15** and prior to **design of planned manure storage, treatment or transfer practices** if **the strategic plan is a CNMP.** Much of this information is shown on NRCS forms MN-CPA 40, 41, 42, and 43. The strategic plan should also address items 12- 14 below.

7) **Certify that scheduled activities have been completed** on NRCS job sheet 590b prior to **AUGUST 15**.

8) **Apply manure uniformly and calibrate manure application equipment** at time of application.

9) **Follow all state law requirements** regarding manure and manure applications near sensitive features. These requirements include:

   a) Determining manure application rates based on crop nitrogen nutrient budgeting on most fields.

   b) Determining manure application rates based on crop P_2O_5 removal on fields within 300 feet of lakes and streams and without filter strips if those fields have soil test phosphorus values greater than 21 ppm Bray 1 (16 ppm Olsen). A single year rate can be based on crop nitrogen needs provided subsequent applications do not occur until excess P has been removed by succeeding crops.

   c) No application is allowed in road ditches and within 25 feet of lakes, perennial and intermittent streams and public water wetlands. No application is allowed within 300 feet when ground is frozen, snow-covered, or actively thawing. Applications at other times must be injected or incorporated within 24 hours if a field edge filter strip is not present (100-foot width for lakes and streams, minimum 50-foot width for intermittent streams, drainage ditches and wetlands). No traveling gun or center pivot manure applications within 300 feet are allowed.

   d) No manure application is allowed within 50 feet of water supply wells, mines, quarries, sinkholes receiving surface runoff or other direct conduits to groundwater. Inject or incorporate manure within 24 hours on land upslope from and within 300 feet of these features.

10) **Do not apply manure on in-field grassed waterways** (unless a variance is granted).

Remaining Crop Years of Nutrient Management

Follow the above provisions 2 through 10, as appropriate.

11) **Complete annual nutrient management plan** prior to **OCTOBER 1** if fall or winter applications are planned and by **APRIL 1** if spring or summer applications are planned.

12) **Determine crop N, P_2O_5 and K_2O nutrient needs** using nutrient budgeting principles (accounts for all sources of nutrients available to crops) and University of Minnesota (UMN) fertilizer recommendations as found in the most recent version of **BU-6240-GO Fertilizer Recommendations for Agronomic Crops in Minnesota** (or analogous crop specific bulletins).

13) **Control sheet, rill, ephemeral gully, and wind soil losses** to 6 tons per acre per year or less on land receiving manure or commercial fertilizer applications.

14) **Address additional areas and soils identified by NRCS as sensitive**
   a) Frequently flooded soils
      - Do not apply manure on soils classified by NRCS as "frequently" flooded (floods 50-100 times in 100 years) during usual peak flood periods. Inject or incorporate within 2 days when applying at other times.
   b) Loamy sand and sand soils
      - Do not fall apply commercial N fertilizer on soils in the textural classes of loamy sand and sand. Sidedress or split applications of commercial nitrogen fertilizer are preferred on these soils.
   c) Coarse textured soils
      - Delay fall manure applications on coarse textured soils until after November 1. Delay spring manure and commercial N and P fertilizer applications on any field until active thawing and runoff events have passed.
   d) Southeastern Minnesota
      - Do not fall apply commercial N fertilizer on sensitive sites in southeastern Minnesota.
   e) Irrigated crops
      - Use sidedress or split applications of commercial N fertilizer on irrigated crops.
   f) Fractured bedrock and high water tables
      - Maintain a minimum separation of 15 inches between bottom of incorporated or injected manure and fractured bedrock or high water table.
   g) Surface tile intakes
      - Inject or incorporate manure within 24 hours upslope from and within 300 feet of surface tile intakes.
   h) Winter manure applications (frozen or snow-covered ground on fields)
      - sheet and rill soil losses greater than 4 tons/acre/year, do not apply solid manure
      - sheet and rill soil losses greater than 2 tons/acre/year, do not apply liquid manure

15) **Certify planned activities have been completed** on form MN-CPA-046 Prior to **AUGUST 1**.

November 2005

* For purposes of this job sheet a crop year begins immediately after harvest of the preceding crop or forage and extends though harvest of the planned crop.

NRCS Natural Resources Conservation Service

Minnesota

Job Sheet 590b **October 2005**

1st YEAR EQIP NUTRIENT MANAGEMENT

Producer Name **Plan Date**

		Scheduled Date:	Assisted By:	Completed Date:
1.	Complete Farm Inventory by: (Forms MN-CPA 40, 41, 42, and 43)			
2.	Calculate Realistic Yield Goals by:			
3.	Complete soil sampling and analysis by:			
4.	Complete manure sampling and analysis of Total N, P_2O_5 and K_2O by			
5.	Calibrate Equipment by:			
6.	Begin keeping field specific records by:			
7.	Develop Strategic Nutrient Mgmt plan by:			

8. Apply manure uniformly and do not apply within 25 feet of surface waters.

9. Do not apply manure on in-field grassed waterways (unless a variance is granted).

10. Do not apply manure within 50 feet of water supply wells, mines, quarries sinkholes receiving surface runoff, or other direct conduits to groundwater. **Inject or incorporate** manure applications within 24 hours on land upslope from and within 300 feet of these features.

11. For land within 300 feet of surface waters:

- Do not apply manure with a traveling gun or center pivot irrigation system at any time and do not apply manure when ground is frozen, snow covered or actively thawing.
- Inject or incorporate manure within 24 hours **OR** install a 100-foot wide grass filter strip along surface waters and a 50-foot strip along intermittent streams and drainage ditches.

Producer Signature (certifies that activities have been completed): Date

Date

TSP Signature (indicates acceptance of producer certification)